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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/288,140	04/08/1999	SHUNPEI YAMAZAKI	0756-1943	7103

7590 11/17/2004
ROBINSON INTELLECTUAL PROPERTY LAW OFFICE
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EXAMINER

TON, MINH TOAN T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/288,140	YAMAZAKI ET AL.	
	Examiner	Art Unit	
	Toan Ton	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,9,14,25,33,36-38,43,51 and 54-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,9,14,25,33,36-38,43,51 and 54-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) ✓ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 9, 14, 25, 33, 36-38, 43, 51, 54-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsueda (JP 01-156725, IDS reference) in view of Wakai et al (US 5055899)

Matsueda discloses a TFT-LCD device comprising (Figure 4): a substrate 40; TFT (not all shown) elements formed the substrate; an polyimide (organic resin) film 52 formed on the TFT elements; pixel electrodes 48 (not all shown) formed on the organic resin film and connected to the respective TFT-elements (TFT elements inherently comprises bus lines connected to their respective source/gate/drain electrodes) through a contact hole (see Figure 4); an interlayer insulating film 46 formed between the TFT elements and the organic resin film.

TFT elements inherently comprise gate lines crossing data lines.

The limitation not disclosed by Matsueda is a lead/first electrode.

Wakai discloses a contact metal film (Applicant's conductive film) disposed between the source/drain electrode and the pixel electrode for achieving advantages such as ensuring electrical connection there between (col. 8, 2nd paragraph, Figure 9), wherein the contact metal film comprises materials such as Cr, Cu, Al (col. 8, third paragraph). Therefore, it would have been at least obvious to one of ordinary skill in the art to employ a contact metal film disposed between the source/drain electrode and the pixel electrode for achieving advantages such as

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ensuring electrical connection there between. Further, it would have at least obvious to one of ordinary skill in the art to employ a contact metal film (Applicant's first electrode) disposed between the source electrode and the source lines (not shown) for achieving similar advantages such as ensuring electrical connection there between.

Matsueda shows two different contact holes not overlapping with each other (see at least Figures 2, 4).

Materials used for the conductive film and the bus lines such as Al are common and known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to employ materials such as Al for the bus lines/conductive film, as it is known and common in the art.

The TFTs being an n-channel or p-channel type are common and known in the art.

The use of a reflective display device is known in the art for advantages such as no need for backlight, improved energy efficiency. Therefore, it would have been obvious to one of ordinary skill in the art to employ a reflective display device for advantages such as no need for backlight, improved energy efficiency. Further, Matsueda discloses that silicon substrate can be used if the device is a reflection display device (page 6, lines 8-9 of the English translation).

Electronic devices such as portable computer incorporating LCDs are common and known in the art since LCDs offer advantages such as lightweight, good resolution.

Response to Arguments

3. Applicant's arguments filed 09/02/04 pertaining to the obviousness double patenting rejection have been fully considered but they are not persuasive.

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Applicant's arguments are as follows:

(1) Neither reference discloses the first contact hole not overlapping the second contact hole.

(2) Neither reference discloses a particular relationship of the first and second TFTs with respect to the first and second signal lines.

Examiner's responses to Applicant's arguments are as follows:

(1) Matsueda, the primary reference, disclose two different contact holes not overlapping with each other (see at least Figures 2, 4).

(2) Matsueda discloses pixel electrodes 48 (not all shown) formed on the organic resin film and connected to the respective TFT-elements (TFT elements inherently comprises bus lines connected to their respective source/gate/drain electrodes) through a contact hole.

Matsueda, the primary reference, discloses all claimed limitations except for the first/lead electrode. Wakai, the secondary reference, discloses a contact metal film (Applicant's conductive film/lead electrode) disposed between the source/drain electrode and the pixel electrode for achieving advantages such as ensuring electrical connection there between (col. 8, 2nd paragraph, Figure 9), wherein the contact metal film comprises materials such as Cr, Cu, Al (col. 8, third paragraph).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 8, 2004


TOANTON
PRIMARY EXAMINER